

tive, but that occasionally there is apparently infection of one person from another in older children and adults. He shows by charts that leukemia has a marked preference for the male sex; that chronic myeloid leukemia shows a majority of cases between 25 and 45; chronic lymphoid leukemia between 45 and 60; acute leukemia shows a decided preference for ages below 25. He recapitulates as follows: "The evidence of the facts here dealt with is almost entirely against the infective nature of leukemia, the established facts being: (1) That there is a congenital form of leukemia, which occurs in children whose parents are not leukemic. (2) That leukemic parents have never been known to transmit the disease to the newborn child. (3) That instances in which actual infection of one person by another might seem to have occurred are very few, although not necessarily devoid of significance. (4) That in having a marked preference for a particular sex and age leukemia differs from the infective class of diseases, and resembles the metabolic diseases and cancer.

Prodromal Symptoms of Infantile Paralysis.—WILSON (*Am. Jour. Dis. Children*, June, 1917). This paper is a study of 400 cases from the wards of the Willard-Parker Hospital, New York. Dr. Wilson takes up the prominent prodromal symptoms under the following headings: fever; gastro-intestinal symptoms; respiratory symptoms; nervous symptoms; urinary system; skin. *Fever:* Fever was the most common initial symptom, being noted in 334 of the 400 cases. Only 2 per cent had no history of fever. The fastigium was reached in twenty-four to forty-eight hours. The highest temperature reached was 106°; the average, 103°; the duration of febrile curve was from one to ten days; the average duration was four days; the temperature fell by crisis or lysis. *Gastro-intestinal Symptoms:* Vomiting was noted in 67 cases as the initial symptoms; as an early symptom in 132 cases. Constipation occurred in 156 cases. Diarrhea was not a common symptom, being present in 25 cases. Abdominal pain was an initial symptom in 21 cases; an early symptom in 25. It was usually severe and persisting several days, referred to the epigastrium and in two cases simulated appendicitis. *Respiratory Symptoms:* Throat. Sore throat was an initial symptom in 21 cases; reddened in 27 cases; follicular tonsillitis in 14. On being admitted 100 cases showed injected fauces in 31; enlarged inflamed tonsils in 11; exudate in 4; mucopurulent discharge in 7. Epistaxis occurred in 2 cases initially. Coryza was noted in 17 cases. Conjunctivitis was noted in 9 cases. Cough was slight in 38 cases; in 2 it was severe. *Nervous Symptoms:* Drowsiness was early and characteristic in 288, or 72 per cent., varying from apathy to stupor in 47 cases. Irritability was present in 153 cases. This was associated with marked hyperesthesia in 97 cases. Tenderness and stiffness of the neck was an early and common symptom in 161 patients. Retraction of the neck and flexion of the lower extremities occurred in 40. Pain was seen in 130 cases, usually to neck, extremities, back and shoulders and chest. Tremor was present in 110 cases. Twitching was observed in 61 cases, sometimes choreiform in character. Twitching of the corner of the mouth sometimes preceded facial paralysis. Headache was noted in 78 cases; frontal or general headache was the first symptom in 12 cases. Convulsions was seen in 6 cases. Irritability in 3 cases. Delirium in 10.

Urinary System: 27 gave the history of urinary disturbance, usually a mild retention. *Skin:* Profuse sweating occurred in 45 cases. *Rash:* Red blotches in 2 cases; general erythema, 4 cases; macular, resembling measles, 8; urticaria, 4; pustular, 2; herpes, 7. Dr. Wilson notes in conclusion: "The prodromal period has been found to be the most important stage in the course of the disease, both as to early quarantine and treatment. A careful history while not diagnostic, is very suggestive particularly in an epidemic."

Occlusion of the Aqueduct of Sylvius in Relation to Internal Hydrocephalus.—SCHLAPP and GERE (*Am. Jour. Pediat.*, June, 1917, xiii, No. 6). Eight cases are reported, all showing either complete occlusion of the aqueductus cerebri or obliteration of the fourth ventricle by severe pathological changes in the ependymal or subependymal tissue. "Those cases, also, developing acutely in previously healthy adults and older children, and which have shown microscopically the same pathologic changes, may have been brought about in the same manner, namely, through the stimulation by some chemical poisoning of a tissue which is embryologically defective. These cases, no doubt, differ etiologically from that large group following meningitis, the acute infectious diseases and those due to bacterial invasion of the brain substance and ependyma from extension of suppurative processes of the middle ear or of cells of the mastoid. A consideration of the life processes of the cell offers an explanation of the occurrence of many cases of congenital and acquired closure of the Sylvian aqueduct. Metabolism is nowhere more delicately expressed than in the highly complex chemical reactions of the cells of the central nervous system; and while knowledge of these reactions is still far from complete, it is, nevertheless, conceivable that any slight noxious influence may be sufficient seriously to disturb the latent forces of the glia cells, resulting in the dominating influence of one or the other of the processes residing in these cells. These life processes may be divided into the nutritive, the formative, and the functional activities. In the first, which involves an appropriation of nutritive substances from the blood, potential energy is stored up and is subsequently translated into formative or functional activity, as represented by cell division, on the one hand, or by functioning of the specialized cell, on the other. In cells which have become highly specialized, as the nerve cell, gland cell and muscle cell, the potential energy of the cell body is converted into the predominating activity, and the formative process is held in abeyance, and, so long as the normal relation between synthesis and catalysis is unimpaired, functional activity of the cell remains in a state of constancy. On the other hand, in those cells not highly specialized, as the ependymal, glia, and the connective-tissue cells, formative activity is easily awakened, and so it happens that in many cases of hydrocephalus, stimulation of these cells by some irritating substance results in an active proliferative process which involves not only the ependyma but the subependymal tissues of the aqueduct of Sylvius, as seen in the obliterative glioses (in these cases). The exact nature, source and means of access of such damaging stimuli are not always readily determined, and, barring the possible influence of syphilis and bacterial invasion of the meninges, ependyma and choroid plexuses, there remains to be studied more